Title (en)
POPULATION OF PRINTED CIRCUIT BOARDS

Title (de)
BESTÜCKEN VON LEITERPLATTEN

Title (fr)
ÉQUIPEMENT DE CARTES À CIRCUIT IMPRIMÉ

Publication
EP 3180969 B1 20200708 (DE)

Application
EP 15778631 A 20151002

Priority
- DE 102014222936 A 20141111
- EP 2015072828 W 20151002

Abstract (en)
[origin: WO2016074851A1] In order to populate printed circuit boards by means of a pick-and-place line, multiple set-ups, each having an associated set-up family, are formed. A number of component types is associated with each set-up and a number of printed circuit board types is associated with each associated set-up family, such that a printed circuit board of a printed circuit board type in a set-up family can be populated on the pick-and-place line using components of the component types associated with the set-up. A setting-up table comprising a stock of components of a component type in a set-up can be provided on the pick-and-place line. A method for populating the printed circuit boards comprises the steps of recording printed circuit board types, from which printed circuit boards are to be populated with components of associated component types, and associating recorded printed circuit board types with set-up families. Subsequently, a sequence is determined, in which the set-ups of set-up families that have been formed are to be populated on the pick-and-place line and the sequence is optimized with respect to a predetermined criterion. Then, printed circuit boards can be populated in the predetermined sequence using set-ups.

IPC 8 full level
H05K 13/08 (2006.01)

CPC (source: CN EP US)
G05B 19/042 (2013.01 - US); **G05B 19/4097** (2013.01 - US); **H05K 13/04** (2013.01 - CN); **H05K 13/08** (2013.01 - CN US); **H05K 13/085** (2018.07 - EP US); G05B 2219/45031 (2013.01 - US)

Citation (examination)
DE 69120887 T2 19961128 - HEWLETT PACKARD CO [US]

Cited by
US10921791B2; EP3451811A4

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
DE 102014222936 A1 20160512; CN 107114013 A 20170829; CN 107114013 B 20191119; EP 3180969 A1 20170621; EP 3180969 B1 20200708; JP 2017538287 A 20171221; JP 6448786 B2 20190109; US 10327370 B2 20190618; US 2017318716 A1 20171102; WO 2016074851 A1 20160519

DOCDB simple family (application)
DE 102014222936 A 20141111; CN 201580061271 A 20151002; EP 15778631 A 20151002; EP 2015072828 W 20151002; JP 2017525616 A 20151002; US 201515524307 A 20151002